

## **RESPONSE**

Claims 1 - 12 remain in this application. Claims 1 - 12 have been rejected. Claims 4 – 9, 11 and 12 have been amended to be dependent only on independent Claim 1. Claims 13 has been added and is dependent on independent Claim 1. Support for the amendment to the claims can be found on pages 7, 8, 14, 15, 22, the original claims and elsewhere in the specification.

The Examiner has objected to Claims 4 - 12 under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend on another multiple dependent claim. Accordingly, Claims 4 – 12 have been amended and are now dependent only on independent Claim 1. In view of the foregoing the objection to Claims 4 – 12 under 37 CFR 1.75(c) should be withdrawn.

**The rejection of Claims 4 – 12 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention is respectfully traversed.**

The Examiner takes the position that Claim 9 includes a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation and is therefore considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired.

Accordingly, Claim 9 has been amended. All of the Claims have been reviewed and it is believed that they none of the Claims include a broad range of limitations together with a more narrow range of limitations.

In view of the foregoing, the Applicant submits that the objection of Claims 4 - 12 should be withdrawn.

**The rejection of Claims 1 and 2 under 35 U.S.C. 103(a) as being unpatentable over King (GB 2,382,071) in view of Hedgewick (U.S. Patent No. 4,090,629) is respectfully traversed.**

With respect to Claim 1, the Examiner takes the position that King discloses a threaded container closure assembly (FIG. 1) comprising a container neck 10 having an opening; a closure 12 for said neck, the closure having a base portion 14 and a skirt portion 16; a first screw thread 18 on the neck, said first screw thread comprising one or more first thread segments, and a second screw thread 20 on an inner surface of the skirt of the closure, said second screw thread comprising one or more second thread segments, said first and said second screw threads being configured to enable a user to secure, remove and resecure the closure into a sealing position on the neck by rotation of the closure on the neck. The Examiner states that King does not disclose a first locking projection on the container neck separate from the first thread segments and a second locking projection on the inner surface of the skirt of the closure separate from

the second thread segments, said first and second locking projections being configured to resist unscrewing of the closure from the fully engaged position on the container neck after the closure has been secured or resecured on the container neck until a predetermined minimum opening torque is applied; wherein said first and second locking projections longitudinally overlap the first of the second thread segments when the closure is in the fully engaged position on the container neck. However, Hedgewick teaches a first locking projection 54 on the container neck separated from the first thread segments and a second locking projection 28 on the inner surface of the skirt of the closure separate from the second thread segments. Therefore, the Examiner believes that it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify King to include first and second locking projections, as taught by Hedgewick, in order to prevent rotation of the cap and keep the cap from unscrewing.

The Applicant submits that the threaded container closure assembly of the subject invention is structurally and functionally different than the closure of the cited references. Claim 1 provides:

A threaded container closure assembly, said assembly comprising:  
a container neck having an opening;  
a closure for said neck, the closure having a base portion and a skirt portion;  
a first screw thread on the neck, said first screw thread comprising one or more first thread segments, and a second screw thread on an inner surface of the skirt of the closure, said second screw thread comprising one or more second

thread segments define a continuous helical thread path along which said closure travels from a fully disengaged to a fully secured position of the closure on the container neck and being configured to enable a user to secure, remove and resecure the closure into a sealing position on the neck by rotation of the closure on the neck;

a first locking projection on the container neck separate from the first thread segments and a second locking projection on the inner surface of the skirt of the closure separate from the second thread segments, said first and second locking projections being configured to resist unscrewing of the closure from the fully engaged position on the container neck after the closure has been secured or resecured on the container neck until a predetermined minimum opening torque is applied;

wherein said first and second locking projections longitudinally overlap the first or the second thread segments when the closure is in the fully engaged position on the container neck;

the first and second locking projections have a length in the longitudinal direction of from 2 mm to 6 mm;

the height of said locking projections is from 0.5 mm to 2 mm, whereby a radially innermost vertex of the second locking element rides over a radially outermost vertex of the first locking element as the fully secured position is reached; and

the first locking projection is located longitudinally overlapping with and circumferentially spaced from an upper end of a first thread segment, or said second locking projection is located longitudinally overlapping with and circumferentially spaced from a lower end of a second thread segment, whereby the said first or second locking projections define an extension of the thread path defined by the thread segments on the neck or the closure.

Thus, the first and the second locking projections are configured to resist unscrewing of the closure from the fully engaged position on the container neck after the closure has been secured or resecured on the container neck until a **predetermined minimum opening torque is applied**. As stated on page 22 of the subject application, the container and closure assembly is provided with complementary locking elements on the container neck unless a minimum unscrewing torque is applied. In contrast, the locking means in Hedgewick utilizes locking lugs 28 and 30 with stop members 52 and 54 that prevent rotation

of the cap relative to the container. To remove the cap from the container, it is necessary to press the cap toward the container against the biasing force of member 25 to disengage lugs 28 and 30 from the stop members 52 and 54. Reverse rotation of the cap then permits the cap to be axially withdrawn from the container. Accordingly, the closure of the subject invention that required a predetermined minimum opening torque is applied is structurally and functionally different then the closure of Hedgewick that requires the cap to be pressed toward the container to disengage lugs 28 and 30.

Further, the locking elements 28, 30, 54 of Hedgewick are located substantially below the bottom of the threads. Locking element 30 does not ride over a vertex of locking element 54 to provide a positive "click" as the closure reaches the closed and sealing position. Instead, the locking element 30 travels under the bottom of element 54 and then rides up to the engaged position. In order to release the locking element it is necessary to push down on the closure and twist. Thus, such an arrangement is clearly unsuitable for conventional or carbonated beverage containers of the kind envisaged by the subject invention.

Claim 2, as amended, provides:

A container closure assembly according to claim 1, wherein the first and/or second locking projections do not extend below the lower edge of the first or second thread segments when the closure is in the fully engaged position on the container neck.

With respect to Claim 2, the Examiner takes the position that King teaches all of

the limitations substantially as claimed except for the first locking projections which do not extend substantially below the lower edge of the first thread segments when the closure is in a fully engaged position on the container neck. However, Hedgewick teaches first locking projections 54 which does not extend substantially below the lower edge of the first thread segments when the closure is in a fully engaged position on the container neck. Therefore, the Examiner takes the position that it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify King to include first and second locking projections, as taught by Hedgewick in order to prevent rotation of the cap and keep the cap from unscrewing.

In establishing a prima facie case of obviousness, three criteria must be met:

- i. Some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; and
- ii. A reasonable expectation of success; and
- iii. The prior art reference (or references when combined) must teach or suggest all the claim limitations.

MPEP § 2143. The Examiner has not established a prima facie case of obviousness with respect to applicant's Claims 1 and 2.

The Applicant restates the arguments made above with respect to independent Claim 1. With respect to King, the reference describes a container and closure assembly with steeply pitched, free-running threads and locking elements to secure the closure in the fully closed and sealing position. In King, the Applicant

agrees with the Examiner that the locking elements are provided well below the thread segments on the container neck and on the closure. This is necessary in order to prevent the locking elements from interfering with the free-running of the threads. Thus, it can be seen in King that the locking elements on the closure cap is located radially outwardly from the threads so that they do not at any point engage with the threads on the container neck. Accordingly, the Applicant can see no reason as to why one would find it beneficial that out of all of the prior art for closures, one would find it beneficial to combine the cited references along the lines of the subject invention. Further, to do so would place the locking elements such that they would interfere with the free-running of the threads in King.

The Examiner fails to show the motivation to combine the cited references and to select and structure the apparatus in such a way as to create the claimed invention. Even if all of the elements of the claim are disclosed in the cited references, the claimed invention taken as a whole cannot be said to be obvious without some reason given in the prior art as to why one of ordinary skill would have been prompted to combine the teachings of the references in such a way as to arrive at the claimed invention.

The Applicant submits that the only teaching of the benefits of combining the subject references to arrive at the claimed invention comes from the Applicant's own specification. Therefore, the combination of references does not teach or

suggest all the claim limitations of Applicant's Claims 1 and 2.

Indeed, the cited references do not contain any suggestion or motivation, either in the references themselves or in the knowledge generally available to one skilled in the art to combine and modify the reference **and the Examiner has not provided any showing of such motivation or teaching**. Because neither reference contains any teaching, motivation, or suggestion for modifying the disclosed devices along the lines of the subject invention the Examiner has not shown a prima facie case of obviousness with respect to Applicants' Claims 1 and 2.

In view of the foregoing, the rejection of Claims 1 and 2 under 35 U.S.C. 103(a) as being unpatentable over King in view of Hedgewick should be withdrawn.

**The rejection of Claim 3 under 35 U.S.C. 103(a) as being unpatentable over King in view of Hedgewick is respectfully traversed.**

Regarding Claim 3, the Examiner takes the position that King and Hedgewick teach all of the limitations substantially as claimed except for first locking projections having a length from about 1mm to about 4 mm. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have first locking projections having a length from about 1mm to about 4mm since it has been held that where the general conditions of a claim are disclosed



in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

Claim 3 has been amended and now provides:

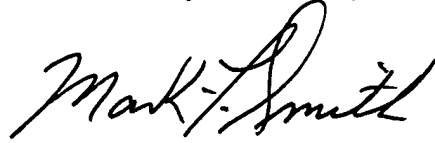
A container closure assembly according to claim 1 or 2, wherein for at least one of said locking projections the ratio of the maximum height to the maximum width is at least 0.5.

With respect to amended Claims 1 and 3, the Applicant restates the arguments made above with respect to independent Claim 1. The Applicant submits that there is no teaching in the cited references, and the Examiner has shown no teaching, as to why one would be motivated to combine the cited references and arrive at the claimed invention. Accordingly, there is no teaching in the cited references that would motivate one to combine the references much less size the first and second locking projections or the ratio of the maximum height to the maximum width as claimed.

In view of the foregoing, the rejection of Claim 3 under 35 U.S.C. 103(a) as being unpatentable over King in view of Hedgewick should be withdrawn.

In view of the foregoing Amendment and Remarks, Applicants respectfully request reconsideration of the Application and that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Mark F. Smith". The signature is fluid and cursive, with the first name "Mark" and last name "Smith" clearly distinguishable.

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